### Chapter 2

### **Data Tables for Individual Transit Agency Statistics**

This chapter contains tables summarizing financial and operating characteristics of 476 individual transit agencies. An additional 66 transit agencies requested and received reporting exemptions (Nine or Fewer Vehicle Exemptions) and 14 were deleted due to incomplete data. All of the reporting exemptions were for very small (nine or fewer vehicle) agencies. Therefore, while there were 556 report submissions, detailed data are provided for 476 transit agencies.

Prior to the 1990 Annual Report, data contained in this chapter can be found in Chapter 3 Individual Transit System Statistics of the *National Urban Mass Transportation Statistics Section 15 Annual Report* for a particular year. Since 1990, data previously provided in Chapter 2 have been expanded and analyzed in the *National Transit Summaries and Trends*. Also, data are available in summary and graphic formats by individual agency in the *Transit Profiles*. More detailed data on the individual agencies, including required-level and voluntary-level data prior to 1992, are available from the public-use tape (See Chapter 1, Section 1.7).

Within each table, the data are organized by State and within each State alphabetically by agency name. The identification number is followed by the agency's type of organization. The inclusion of the organizational type code provides a better way of describing transit providers. The organization codes used are:

#### Code Organization Type

- A Public agency or authority that directly operates all transit service [not a State Department of Transportation (DOT)]
- B Public agency or authority that contracts for some or all transit service (not a State DOT)
- C State Department of Transportation

- D Private carrier under contract to one or more public agencies
- E Private carrier not under contract to a public agency and not receiving FTA Urbanized Area Formula funds
- F Other

In cases where the transit agency name or acronym does not identify the primary operating location of the reporter, the name of the urbanized area (UZA) has been added in front of the transit agency name. Purchased Transportation (PT) data is identified in column "TOS" (Type of Service) for Tables 5-9. Tables 10 and 26 also includes PT data but for lack of space, the identification is made through the letter "p" following the mode.

Several transit agencies provide data for transportation services in more than one UZA. For reporting purposes, each transit agency is assigned to a single UZA, generally to that UZA receiving the majority of transportation services. For 49 USC 5307 (formerly Section 9 of the Federal Transit Act, as amended) apportionment purposes, relevant data are desegregated into the various component UZAs.

The data in this chapter have a broad range of applications. They are, however, subject to the limitations discussed in Chapter 1 relating to the need to perform a more detailed examination of underlying factors and data consistency. The statistics in Chapter 2 permit interested transit agencies to compare their performance more selectively, e.g., by selecting those agencies defined as being within the same peer group by virtue of climate, topography, demographic characteristics of the population served, or factors other than industry averages.

Caution: Some analysts tend to overstate the significance of comparisons based strictly on data contained in this report. Performance measures obtained using this data should be viewed strictly as tentative indicators of potential areas of improvement. If a

specific indicator appears to imply below-average performance relative to industry peers, more detailed analysis is imperative in order to reveal the factors underlying the below-average value. These factors may either be improved by alteration or are beyond the control of management.

Chapter 2 presents a detailed description at one point in time of the performance of the 476 individual transit agencies. Since this is the nineteenth annual report and most of these agencies have reported in prior report years, the data can also be used for timeseries analyses. Such analyses can contribute to conclusions on the current and evolving conditions and problems of specific transit agencies, and the transit industry as a whole. Time-series analyses, however, must consider two important changes to Chapter 2: beginning with the 1983 report, annual reports were published based on transit agencies' fiscal years ending during the calendar year rather than a July 1 to June 30 period (see Section 1.3 in Chapter 1 for additional details), and beginning with the 1990 Annual Report, individual Transit Agency Statistics are reported in Chapter 2.

The tables in Chapter 2 are organized in four major groupings:

- · transit revenues
- transit expenses
- non-financial operating data
- performance indicators

# 2.1 Special Notes on the Desegregate Data Tables

Several issues pertaining to the reporting system and the 1997 Annual Report are summarized in Section 1.3 of the introduction (Chapter 1). Users of Chapter 2 tables should refer to this section for a better understanding of the data, particularly the discussions of purchased transportation, public and private transit agency identification, vehicles operated in annual maximum service, and questionable data items. To avoid confusion, especially when performing comparative analyses using previously published reports, users should refer to these sections as well as the discussions of individual tables in Sections 2.3 through 2.5 of Chapter 2.

### 2.2 Reporting Changes

Through the National Transit Database, the FTA has implemented several reporting changes since 1992. The primary objective, of the reporting changes, have been to improve the quality of the data without increasing the reporting burden to agencies. The following chart summarizes these changes and should be referred to when undertaking analysis involving two or more report years.

### Reporting Changes Summary 1993 to 1997

#### 1993 Report Year

- Received 523 report submissions consisting of 495 included in the 1993 National Transit Database and 28 reporting exemptions
- Retained one reporting level consisting of 15 reporting forms
- Expanded diskette reporting (Lotus interface, Declaration files)
- Eliminated Revenue Reporting Form (201)
- Consolidated Transit Agency Service Forms (406 and 407) (Rail and Non-Rail) into one form
- · Added person count to employee data
- Expanded the mandatory sampling interval from 3 to 5 years for reporters in urbanized areas with less than 200,000 population

#### 1994 Report Year

- Received 528 report submissions consisting of 493 included in the 1994 National Transit Database, 31 reporting exemptions, and 4 deletions
- Maintained one reporting level consisting of 15 reporting forms
- Enhanced diskette reporting (Customized Declarations, Date Transfers, Key Indicators)
- Increased threshold for required reporting of Operator's Wages Form (321) and Fringe Benefits Form (331) from 25 to 100 or more directly operated revenue vehicles
- Added employee injuries and fatalities to the Transit Safety Form (405)

#### 1995 Report Year

- Received 537 report submissions consisting of 468 full reports included in the 1995 National Transit Database, 55 reporting exemptions and 14 deletions
- Maintained one reporting level consisting of 15 reporting forms
- Enhanced diskette reporting ("Smart" forms, data import, error and status reports, etc.)
- Glossary of Transit Terms updated and incorporated into the 1995 Reporting Manual
- Expanded Safety Data and added Security reporting requirements to the Transit Safety Form (405) which became Transit Safety and Security Form (405)
- Reported Capital Funding Form by type of service (directly operated and purchased transportation)
- Reported Operating Expense Form (301) by type of service (directly operated and purchased transportation(optional))
- Reported Non-Financial Operating Data by mode and type of service (directly operated and purchased transportation (optional)) for Revenue Vehicle Maintenance and Energy Form (402), Transit Agency Employee Form (404), and Transit Safety and Security Form (405)

#### 1996 Report Year

- Received 541 report submissions consisting of 462 full reports included in the 1996 National Transit Database, 60 reporting exemptions and 19 deletions
- Maintained one reporting level consisting of 15 reporting forms
- · Enhanced diskette reporting with the inclusion of new checks and other features
- Reported the full cost of purchased transportation services, including expenses incurred by the seller when the buyer under the purchased transportation agreement does not pay for the full cost of the service
- Reported Cash and Non-Cash reconciling expenditures at system wide level
- Reported total operating expense attributable to ADA (Americans with Disabilities Act) compliance requirements for Demand Response
- Reported annual total number of unlinked passenger trips eligible as ADA trips

#### 1997 Report Year

- Received 556 report submissions consisting of 476 full reports included in the 1997 National Transit Database, 66 reporting exemptions and 14 deletions.
- Maintained one reporting level consisting of 15 reporting forms
- Reported purchased transportation expenses detailed by function.
- Reported safety and security for purchased transportation.

#### 2.3 Transit Revenues

Tables 1-9 contain information on the types of operating funds applied for individual transit agencies. Operating funds applied are required to be reported by transit agency totals, not by individual modes. Table totals are provided for national totals, fleet size, and size of urbanized area; however, these totals vary depending on the number of transit agencies reported.

Also for these tables, the number of vehicles operated in annual maximum service includes those vehicles used for both directly operated and purchased transportation services included under the same transit agency's identification number as reported on the Transit System Service Form (406).

The National Transit Database adopts accrual accounting to record financial data, i.e. revenues reported are those that resulted in liabilities for benefits received during the fiscal year, regardless of whether or not payment of the expenditure was made during the reporting period.

Transit revenue applied data are presented in the following tables:

 Table 1: Transit Operating Funds Applied.

Data were compiled from the Operating Funding Form (203). Data are reported system wide. The Operating Funding Form (203) incorporates the revenue data by describing the funding sources for operating expenditures using revenue object classes 401 through 440 (directly generated funds) and the contribution of Federal, State, and local governments funds to the operating subsidy of transit agencies. The funds reported on this form do not have to be revenue earned during the reporting period; the funds may include revenue earned in prior reporting periods. Only funds expended (applied) are reported.

A change instituted in 1991 has been retained since then: object class 402 (Special Transit Fares) was included with object class 401 (Passenger Fares).

The column headed "Directly Generated Funds: Other Revenues" combines various revenue object classes, including 403 (School Bus Service Funds), 404 (Freight Tariffs), 405 (Charter Service Funds), and 406 (Auxiliary Transportation Funds). The column "Dedicated & Other" under Directly Generated Funds includes funds dedicated to transit at their source such as Income, Sales, Property, Gasoline and Other levied taxes as well as Bridge, Tunnel, and Highway tolls. These are fees where the transit agency has the legal authority to impose them.

The Other-Federal Public Funds column indicates operating funding from such sources as the Planning Program, 49 USC 5303 (formerly Section 8 of the Federal Transit Act, as amended), Research, Development, Demonstration and Training, 49 USC 5312 (formerly Section 10 of the Federal Transit Act, as amended), and the Nonurbanized Area Formula Program, 49 USC 5311 (formerly Section 18 of the Federal Transit Act, as amended).

Other changes instituted, beginning with the 1993 Data Tables, affected the Public Funds subcategories for State and Local Funds. First, for State funds, General Revenue was inserted in place of Grants and Reimburse. However, object class 411 was used for both. Second, the Dedicated and Other column with State funds was retitled from Fare Assistance in 1992. Despite the retitling, both contained object class 412, State Special Fare Assistance. Third, changes in column headers were made to reflect the reporting change Local Funds—General Revenue replaced Grants and Reimburse and it continued to report object class 409 (Local Cash Grants and Reimbursements). Fourth, the Local Funds-Dedicated Other was a retitling from Fare Assistance; it, too, continued to report object class 410 (Local Special Fare Assistance).

The aggregation of operating funds applied does not include private providers under contract to public agencies if the funds are reported by both entities. This avoids double-counting of operating funds applied.

**Tables 2 and 3:** State Taxes Dedicated at their Source for Transit Operating Funds Applied and Local Taxes Dedicated at their Source for Transit Operating Funds Applied.

Tables 2 and 3, having identical formats, were compiled from the Operating Funding Form (203) and present State and local taxes, respectively, that have been applied to transit operations. Operating funding from dedicated taxes are desegregated by type of tax (income, sales, property, gasoline, or other). The Other Taxes column includes any other special State or local taxes dedicated at their source to transit operating funding such as payroll and utility taxes.

**Table 4:** Directly Generated (Transit Agency) Taxes Dedicated at their Source for Transit Operating Funds Applied.

Beginning in 1992, an addition to the Data Tables data for Table 4 was compiled from the Operating Funding Form (203). This table provides a breakdown of directly generated dedicated taxes by Income Taxes, Sales Taxes, Property Taxes, Gasoline Taxes, and Other Taxes applied to transit operations.

### Table 5: Transit Capital Funds Applied.

Data were compiled from the Capital Funding Form (103). This table was changed in 1996 with the inclusion of capital data by type of service. Column "TOS" means type of service which can be directly operated (DO) or purchased transportation (PT). See section 1.3 on Chapter 1 for more details on purchased transportation and directly operated types of services.

Federal sources of assistance are classified either as funds provided under 49 USC 5309 (formerly Section 3 of the Federal Transit Act, as amended), or 49 USC 5307 (formerly Section 9 of the Federal Transit Act, as amended), or from other sources. State and local sources are divided into General Revenue and Dedicated. Dedicated sources restrict funds to transportation-related expenditures, while transit must compete with

other public programs for general revenues. Dedicated sources of funds are desegregated into Taxes (income, sales, etc.) and Other (bridges, tunnels, State and local bonds, investment income, etc.).

For the 1991 Report Year, a column was included for Transit Agency Funds dedicated at their source. Transit Agency Funds do not include fare revenues. Transit Agency Funds was changed to Directly Generated Funds beginning in 1992.

**Tables 6 and 7:** State Taxes Dedicated at their Source for Transit Capital Funds Applied and Local Taxes Dedicated at their Source for Transit Capital Funds Applied.

These tables were changed in 1996 with the inclusion of capital data by type of service. The column "TOS" means type of service which can be directly operated (DO) or purchased transportation (PT). See section 1.3 on Chapter 1 for more details on purchased transportation and directly operated types of services.

Tables 6 and 7 were also compiled from the Capital Funding Form (103). These two tables further desegregate the State and local tax revenue applied for public transit capital that was shown in Table 5.

**Table 8:** Directly Generated (Transit Agency) Taxes Dedicated at their Source for Transit Capital Funds Applied.

Table 8 was added to the Data Tables beginning in 1992. Data were compiled from the Capital Funding Form (103). The collection of this data on Form (103) was also a new reporting requirement for that report year.

This table was changed in 1996 with the inclusion of capital data by type of service. The column "TOS" means type of service which can be directly operated (DO) or purchased transportation (PT). See section 1.3 on Chapter 1 for more details on purchased transportation and directly operated types of services.

This table provides a breakdown of directly generated dedicated taxes by Income Taxes, Sales Taxes, Property Taxes, Gasoline Taxes, and Other Taxes applied for transit capital.

**Table 9:** Capital Funds Applied by Type of Expenditure.

This table was changed in 1996 with the inclusion of capital data type of service. The column "TOS" means type of service which can be directly operated (DO) or purchased transportation (PT). See section 1.3 on Chapter 1 for more details on purchased transportation and directly operated types of services.

Data are compiled from the Capital Funding Form (103). Added in 1991, Table 9 provides a breakdown of the capital funds applied and how they were used. Data are provided by mode and type of service for three primary uses: rolling stock, facilities, and other. Aggregate totals for each mode and type of service reported by a transit agency are also provided.

### **Potential Data Applications**

Tables 1-9 summarize the magnitude and source of transit funds applied for individual transit agencies. The data in these tables permit analyses of the extent to which specific agencies recover operating expenses from fares and the extent to which they rely on various sources of directly generated, local, State, and/or Federal assistance to apply to their operation.

Transit agencies can use these data to compare the types of funds applied and the percentage distributions of their sources to those of other agencies. In general, the data permits cross-sectional and timeseries analyses, but more specifically allows analysts to examine individual agencies and to custom define peer groups. For example, peer groups could be formed based on mode, fleet size, annual operating expenses, or other factors not contained in this report, such as climate and collective bargaining agreements. Comparisons can then be made to the individual transit agencies in the group averages.

### 2.4 Transit Expenses

Operating Expenses are reported using accrual accounting. Operating expenses are reported in the year they were incurred. This is the year in which they result in liabilities for benefits received, regardless of whether or not payment of the expenditure is made during the reporting period.

Tables 10-13 contain information on the types and amounts of expenses incurred by individual transit agencies. Transit expenses are reported (1) by Function and (2) by Object Class.

In Tables 10, 11, 12, and 13, the number of vehicles operated in annual maximum service include those vehicles used for both directly operated and purchased transportation services included under the same transit agency's identification number as reported on the Transit System Service Form (406).

### Expenses by Function

Functional classes divide operating expenses into four major categories:

- (VO) Vehicle Operations
- (VM) Vehicle Maintenance
- (NM) Non-Vehicle Maintenance
- (GA) General Administration

Analysis of expenses by function must be qualified by the degree to which transit agencies uniformly allocate expenses among the various functional categories. This analysis should include careful consideration of reporting limitations as well as detailed accounting practices at the specific transit agencies examined.

Functional breakdowns were provided by transit agencies reporting at voluntary levels A, B, or C through 1991. One basic level of reporting was adopted for the 1992 Report Year with optional reporting of more detailed data on selected forms. Even though the Data Tables did not show detailed expenses provided with voluntary-level reporting, the public-use tape did provide them. The public-use tape contains the basic report submissions and any optional data reported.

A further modification was made for the 1992 Report Year and has been continued. Allocation of joint expenses was discontinued. The discontinuation provides a more accurate allocation of costs by mode. However, prior year comparisons by mode may fluctuate depending on the amount of joint expense reporting in periods prior to 1992.

### Expenses by Object Class

Object classes divide operating expenses into such categories as labor, fringe benefits, services, and materials and supplies among others.

Whereas revenue data were summarized for all modes operated by a transit agency, the expense data are desegregated by mode. For each of the various functional categories, multi-modal transit agencies must fully allocate expenses to the appropriate modes beginning with the 1992 Report Year.

#### Reconciling Expenses

The operating expenses summarized in these tables exclude Reconciling Items (e.g., interest expenses, leases and rentals, and depreciation). Reconciling items are reported only as agency totals and are not desegregated by mode or functional class. Reconciling items are required to provide an overall total which is consistent with the total operating funding applied (Tables 1-4) and with published reports. These expenses are reported separately because local accounting practices for handling such items (particularly depreciation and amortization) differ widely. Generally, analysts using these data exclude reconciling items from operating expenses. Although this actually understates true operating costs, it resolves the problems inherent with inconsistent treatment of reconciling items.

Transit expense data for individual transit agencies are summarized in the following tables:

**Table 10:** Transit Operating Expenses by Mode and Function.

Data were compiled from the Operating Expenses Form (301), for each reported mode.

Since purchased transportation expenses for agencies contracting more than 100 vehicles in maximum service distort the financial data associated with service directly operated by a transit agency, object class 508.02 (purchased transportation files separate report) has been subtracted and presented in a separate column.

Note: Object class 508.01 (purchased transportation in report) was reported by function in 1997 and Table 10 now includes these expenses detailed by vehicle operations, vehicle maintenance, non-vehicle maintenance and general administration. In previous years, these expenses were collapsed under column "purchased transportation in report".

Object classes 508.01 and 508.02 reflect the full cost of purchased transportation services except in the cases where part of the funding for the purchased service is provided by the seller(s). Object classes 508.01 and 508.02 include:

- contract expenditures by the buyer
- fare revenues retained by seller(s)
- other costs incurred by the buyer such as contract administration, marketing, etc.

For purchased transportation agencies, with more than 100 vehicles in annual maximum service, expense data are reported from the directly operated perspective if the seller is not a brokerage system. In brokerage systems, operating expenses are reported under object class 508.01 by the broker and under object class 508.02 in the buyer's report.

As a result, in the cases of purchased transportation involving 100 or more vehicles operated in maximum service, expense data are reported twice. Expense data are reported by both the contracting agency (buyer) as a purchased transportation expense (508.02) and by the contract provider (seller) by function and object class if the seller is not a brokerage system. Brokers report separately if the purchased transportation agreements involve more than 100 vehicles operated in maximum service, but their expenses are lumped under object class 508.01 and are detailed by function.

In general, expenses reported under object class 508.02 are greater than expenses reported by the seller(s) because of contract costs incurred by the buyer and profit.

The summarization of operating expenses by UZA size, by mode, and vehicle group totals is calculated

by summing all columns except Purchased Transportation Filing a Separate Report (object class 508.02). This is to avoid double-counting of data when operating expenses are aggregated.

**Table 11:** Transit Operating Expenses by Mode and Object Class.

Data were compiled from the same forms used for Table 10. Object class categories correspond to those reported on the Operating Expenses Form (301).

501.01 — operators' salaries and wages;

501.02 — other salaries and wages;

502 — fringe benefits;

503 — services;

504.01 — fuel and lubricants;

504.02 — tires and tubes;

504.99 — other materials and supplies;

505 — utilities;

506 — casualty and liability;

508.01 — purchased transportation (included in

report);

508.02 — purchased transportation (files sepa-

rate report).

In addition, 507—taxes, 509—miscellaneous expense, are included as Other. A separate column showing expense transfers (510) is included in this table. In 1995 and prior years, expense transfers were included as Other expenses. Double counting of operating expenses exists in this table for a limited number of transit agencies. See discussion about object classes 508.01 and 508.02 above for Table 10. The summarization of operating expenses by UZA size, by mode, and vehicle group totals is calculated by summing all columns except Purchased Transportation Filing a Separate Report (object class 508.02). This is to avoid double-counting of data when operating expenses are aggregated.

**Table 12:** Transit Operating Expenses by Function and Object Class.

This table is included because 13.5 percent of the reporting transit agencies operate only bus services. For the 1997 Report Year, 73 transit agencies operated only bus service. Of these, 22 received a

reporting exemption. Data are cross-classified by major functional and object classes.

The summarization of operating expenses by UZA size, by mode, and vehicle group totals is calculated by summing all columns except Purchased Transportation Filing a Separate Report (object class 508.02). This is to avoid double-counting of data when operating expenses are aggregated.

Object classes are the same as those in Table 11. The function codes used in the table represent the four major functional categories:

- (VO) Vehicle Operations
- (VM) Vehicle Maintenance
- (NM) Non-Vehicle Maintenance
- (GA) General Administration

The total number of buses operated in annual maximum service include those buses used for both directly operated services and for purchased transportation services. The totals are included under the same transit agency's identification number as reported on the Transit System Service Form (406) by type of service for the bus mode.

#### **Table 13:** Employer Paid Fringe Benefits.

Data were derived from Fringe Benefits Form (331). The information presented represents agency totals, because categories of fringe benefits payments are not reported by mode. This form is not required for transit agencies with 100 or fewer vehicles operated in annual maximum service.

#### Potential Data Applications

The expense tables summarize the costs of operating individual transit agencies. Data are desegregated by mode, function, and object classes. These data can be used to compare costs among various transit agencies and to determine potential areas for improvement. As discussed in Chapter 1, such analysis should incorporate careful examination of all causal factors underlying these differences. This examination can require information beyond that which is obtainable from this reporting system.

### 2.5 Non-Financial Operating Data

Tables 14-27 contain non-financial operating data for individual transit agencies. Except for Tables 20 through 26, all the tables include only data for directly operated services.

### Transit Maintenance, Safety, and Security

Table 14 summarizes numbers of roadcalls and other maintenance-related statistics such as facilities. Use of data from this table for analyses generally requires additional data, such as vehicle miles.

In addition, the interpretation of what constitutes a roadcall has not been uniform; therefore, these data may be inconsistent among transit agencies. Roadcall figures should be viewed as gross indicators. Analysis of roadcalls as measures of maintenance performance should be undertaken with caution and requires detailed examination of how roadcalls were defined and the individual agencies' policies for taking vehicles out of service. Application of data over time is also relevant in determining trends and conducting further analysis.

Instructions concerning the reporting of roadcalls for mechanical failures are further clarified as a revenue service interruption caused by failure of some mechanical element of the revenue vehicle. Mechanical failures include breakdowns of air equipment, brakes, body parts, doors, cooling systems, heating systems, electrical units, fuel system, engine, steering and front axle, rear axle and suspension, and torque converters.

Transit facilities are reported based on the number of vehicles assigned to the facility. In addition, two classifications of facilities are defined for general purpose use and heavy maintenance work. A general purpose facility is the most commonly reported facility since it provides running repairs, servicing, and vehicle storage as well as component repair and overhaul. A heavy maintenance facility is generally reported by large agencies that have a facility wholly dedicated to component repair and overhaul.

The number of vehicles assigned to a facility will vary depending on the number of modes operated by

the agency and by the size (capacity) of the facility. Also,

unique geographical features and/or constraints that may make it more economical to operate more than one facility to support a small fleet of vehicles may result in the number of facilities reported for the transit fleet appearing to be more than would normally be required.

Another related factor in the determination of facilities is a reporting requirement to allocate the facility among modes if it is being used by more than one mode. Many transit agencies are operating both bus and demand response systems and are required to allocate the facility between the two. For example, if a transit agency reports 100 total vehicles of which 70 are buses and 30 are demand response, it would allocate the facility as .7 for bus and .3 for demand response. When relatively small transit agencies report multiple facilities, one needs to consider some of the factors mentioned above and whether or not a proper allocation was performed.

Transit Safety and Security data are compiled from the Transit Safety and Security Form (405). Reporting requirements for safety data were expanded in 1995 with the addition of fatalities and injuries for patrons, employees and others for each safety item, such as collisions and non-collisions (derailments, personal casualties and fires). Additionally, new items for personal casualties were added.

Reporting requirements were expanded again in 1997 with the inclusion of safety and security data for purchased transportation.

Security data are compiled from the Transit Safety and Security Form (405). Only agencies serving urbanized areas (UZAs) over 200,000 population report transit security data. The reporting of security data commenced with the 1995 Report Year. Data is reported by mode and is summarized from the FBI Uniform Crime Reporting (UCR) Program. The definitions used in this form are from the FBI *Uniform Crime Reporting Handbook*, 1984. Data for transit security are divided into two parts: Offenses (Reports) and Offenses (Arrests). The first category offenses (Reports) includes serious crimes against persons, such as homicide, forcible rape, robbery and aggravated assault. These offenses are reported based on records of calls for assistance, complaints and/or

investigations. This category also includes crimes against property, such as larceny/theft, motor vehicle theft, burglary and arson.

The second category offenses (Arrests) consists of less serious crimes and is counted based on arrests made. For each arrest, data are presented by mode and type of service.

### Transit Way Mileage

Directional route miles are reported on the Transit Way Mileage Form (403) and presented in Tables 16-18. The term Directional Route Mile is defined as the mileage in each direction over routes that public transportation vehicles travel while in revenue service. Directional route miles are a measure of the facility or roadway, not the amount or frequency of service carried on the facility, i.e., number of routes or vehicle revenue miles. They are determined by direction of service, but not by the number of traffic lanes or rail tracks existing in a given right-of-way. If vehicles travel in only one direction within a rightof-way, each mile is counted once. If vehicles travel in both directions, each mile is counted twice. A mile of single track over which commuter rail service operates in both directions represents two directional route miles. A mile of exclusive busway on which a transit agency operates six different routes in only a single direction represents one directional mile, regardless of the number of routes.

Tables 16-19 contain data for Directly Operated service only, as their titles indicate. Other annual publications (*Transit Profiles, National Transit Summaries and Trends*) report directional route miles for both directly operated and purchased transportation modes.

#### Service Supplied and Service Consumed Data

Service supplied data include vehicle miles, vehicle revenue miles, vehicle hours, and vehicle revenue hours. Beginning in 1984, transit agencies were asked to indicate both their scheduled and actual vehicle revenue miles of service. The purpose of adding scheduled vehicle revenue miles of service is to allow a transit agency to indicate whether it may have more or less service than was originally sched-

uled or planned. The difference between vehicle miles and vehicle revenue miles represents deadheading. Definitions of the above data terms can be found in the *Federal Transit Administration Uniform System of Accounts* (USOA) and in the *Glossary of Transit Terms for the National Transit Database in the 1997 Reporting Manual.* 

Service Consumed data refer to ridership information (measures of use of the service supplied) and include unlinked passenger trips and passenger miles.

Because passenger mile data are not normally collected by transit agencies as a routine part of their operations, these data are among the most difficult to collect. In most instances, they are collected using sampling techniques. While FTA has developed several such techniques, transit agencies were allowed to use self-certifying sampling techniques beginning with the 1990 Report Year. Regardless of the sampling technique used, it must satisfy precision and confidence level requirements of 10 percent and 95 percent, respectively.

Service supplied and service consumed data are reported on the Transit System Service Form (406); data are reported in terms of average weekday, average Saturday, and average Sunday.

The non-financial operating data are provided in the following tables. For multi-modal agencies, data are desegregated by individual modes.

**Table 14:** Revenue Vehicle Maintenance Performance.

Data were compiled from the Revenue Vehicle Maintenance Performance and Energy Consumption Form (402). The number of vehicles operated in annual maximum service are for those vehicles used for directly operated services only as reported on the Transit System Service Form (406). For an explanation of maintenance, see the earlier section on transit maintenance and safety.

Table 15: Energy Consumption.

Data for this table were compiled from the Revenue Vehicle Maintenance Performance and Energy Consumption Form (402). The number of vehicles operated in annual maximum service are for those vehicles used for directly operated services only as reported on the Transit System Service Form (406).

The table was expanded in 1995 with the inclusion of kerosene and grain additive fuel. However, only 4 agencies reported these fuel types in 1997;

therefore, they were collapsed under "other" fuels. Fuel types reported are used for revenue vehicles only.

Tables 16-18: Transit Way Mileage.

Data were compiled from the Transit Way Mileage Form (403), directly operated service only. For an explanation of directional route miles, see the above section on transit way mileage.

Tables 16-18 display Transit Way Mileage in three separate groups: Non-Rail, Ferryboats, and Rail. This separation provides for easier comparison of like modes and reduces the number of unnecessary blank entries. Table 18 reports mode code MO which is monorail.

Unique to the reporting of directional route miles for ferryboat and trolleybus modes is a determination by law. For these two modes only, all directional route mileage is classified as exclusive for reporting purposes.

**Table 19:** Transit Agency Employee Work Hours and Person Count.

Data were compiled from the Transit System Employee Form (404). Data are collected on this form for both employee work hours and a person count at fiscal year end. Fractional entries for actual person counts result from the fact that in cases where employees work for more than one function or mode or type of service, the actual person count is prorated among labor classifications and modes by type of service. When working on capital projects, an employee's labor is considered a capital expense; otherwise, it is an operating expense.

Some care is required for analyses of the data presented in this table. Employee work hours include the hours worked by both full time and part time employees, but only the full time employee count is included in the table. Employee work hours are not reported separately for part time employees; consequently, the ratio hours per employee count may be skewed even if the number of part-timers was included in the table. There-

fore, when applying average full-time employee counts to employee work

hours, one may calculate a high level of annual employee work hours per full-time employee. This will be especially true if part-time employees are heavily utilized or service adjustments were made during the year and a smaller number of full-time employees were included in the person count at fiscal year end.

Work hours cover the entire report year whereas person counts are based on those employed on the last day of the report year.

While many transit modes are labor intensive, others are not. Due to the unique characteristics of their operations, some modes such as vanpool do not always provide complete employee-related data. Another reporting anomaly sometimes occurs: some transit agencies providing directly operated service utilized contractual services for a portion of the service provision. In these situations, labor is either not reported for an activity such as vehicle maintenance or only reported for the labor that is engaged in activities associated with the contract services. As a result, labor is understated and when reported within a directly operated report can create misleading information. Examples of how this occurs include: transit agencies acquiring operating labor through a purchased transportation arrangement; maintenance services performed by another municipal entity like a public works department; specific management services performed by a management services company; etc. When zero and/or low values are reported within a directly operated report, caution should be exercised in the use of employee-related data.

### Transit Safety

Data were compiled from the Transit Safety and Security Form (405). Reporting requirements for safety data were expanded in 1995 with the addition of fatalities and injuries for patrons, employees and others for each safety item, such as collisions and non-collisions (derailments, personal casualties and fires); new items for personal casualties were also added.

Reporting Safety and Security data for purchased transportation was mandatory in 1997 and is included in the 1997 Data Tables.

New data requirements frequently result in some data anomalies due to reporting misunder-standings and incorrect applications by transit agencies. The data can also be impacted by agencies requesting data waivers.

Safety data are presented in Tables 20 through 25. In each table, the number of vehicles operated in annual maximum service represents those vehicles used for both directly operated and purchased transportation services as reported on the Transit Agency Service Form (406).

**Table 20:** *Transit Safety:* Number of Incidents-Collisions, Non-Collisions and Transit Property Damage.

This table includes data related to incidents and total transit property damage. An incident is defined as an unforeseen occurrence which results in collision, derailment, personal casualty, nonarson fire, or property damage exceeding \$1,000 associated with transit agency revenue vehicles, maintenance areas and rights-of-way. Incidents are divided into two main categories: collisions and non-collisions. For collisions, the total number of incidents involving collisions with other vehicles, objects and people is presented in addition to the total number of collisions at grade crossings attempted/ and successful suicides.

For non-collisions, incidents related to derailments, personal casualties and non-arson fires are included.

**Table 21:** *Transit Safety:* Number of Fatalities-Collisions and Non-Collisions.

This table presents fatalities related to collisions and non-collisions. A fatality is defined as a death confirmed within 30 days after an incident which occurs under the collision, derailment, personal casualty, or non-arson fire categories. In this table, for each category of collisions and non-

collisions, the number of fatalities involving patrons and non-patrons (employees and others) is presented.

**Table 22:** *Transit Safety:* Number of Injuries-Collisions and Non-Collisions.

This table presents injuries related to collisions and non-collisions as in the previous table. Injury is defined as any physical damage or harm to a person requiring medical treatment, or any physical damage or harm to a person reported at the time and place of occurrence. For each category of collisions and non-collisions, the number of injuries involving patrons and non-patrons (employees and others) is presented.

### Transit Security

Data were compiled from the Transit Safety and Security Form (405). Only agencies serving urbanized areas (UZAs) in excess of 200,000 populations report transit security data. The reporting of security data commenced for the 1995 Report Year.

Data is reported by mode and type of service and is summarized from the FBI Uniform Crime Reporting (UCR) Program. The definitions below are taken from the FBI Uniform Crime Reporting Handbook, 1984. Data for transit security are divided into two categories: Part I—Offenses (Reports) an Part II—Offenses (Arrests). The first category includes serious crimes against persons, such as homicide, forcible rape, robbery and aggravated assault. These offenses are reported based on records of calls for assistance, complaints and/or investigations. Part I also includes crimes against property, such as larceny/theft, motor vehicle theft, burglary and arson.

The second category involves less serious crimes and is reported based on arrests made. For each crime, data are presented by mode and type of service.

Security data are presented in Tables 23 through 25. In each table, the number of vehicles operated in annual maximum service represents those vehicles used for both directly operated and purchased transportation services as reported on the Transit Agency Service Form (406).

**Table 23:** *Transit Security:* Part I-Offenses (Reports) Violent Crime.

This table presents data for violent crime (crimes against persons). For each reported crime, the total (in vehicle plus in station plus other transit property) for patrons, employees and others is included. The data are presented by mode and type of service for transit agencies serving UZAs in excess of 200,000 population.

**Table 24:** *Transit Security:* Part I Offenses (Reports) Property Crime.

This table presents data for property crime. As in Table 23, for each reported crime, the total number of reports for patrons, employees and others is included. The data are presented by mode and type of service for transit agencies serving UZAs in excess of 200,000 population.

**Table 25:** *Transit Security:* Offenses (Arrests) and Transit Property Damage.

This table presents data for less serious crimes and is reported based on arrests made. These data are presented by mode and type of service. Additionally, the total transit property damage (repair or replacement of transit agencies' vehicles or facilities to a State equivalent to that which existed prior to the incident) is included.

**Table 26:** *Transit Operating Statistics:* Service Supplied and Service Consumed.

This table summarizes transit service supplied and consumed data. Data were compiled from the Transit System Service Form (406) for directly operated and purchased transportation service.

The vehicles available for annual maximum service represent the total active service fleet and include spares, out of service vehicles, and vehicles in or awaiting maintenance. They do not include vehicles being held for sale, emergency contingency use, etc. If the total active fleet for a given mode varies during the year, the reported figure represents the same time period as that used to report vehicles operated in annual maximum

mum service. Thus, the difference between vehicles available for annual maximum service and vehicles operated in annual maximum service can be used to compute a transit agency's spare ratio. See Section 1.3 of Chapter 1 for further details on vehicle data.

Data for the column "Annual Scheduled Vehicle Revenue Miles," for modes Demand Response (DR), Jitney (JT), Publico (PB), and Vanpool (VP) have been zeroed. These modes by definition do not have any scheduled service.

**Table 27:** Age Distribution of Active Revenue Vehicle Inventory.

Data were compiled from the Revenue Vehicle Inventory Form (408) for directly operated services only. Data are shown by vehicle type and age of vehicles in the total active fleets. The vehicle type codes are listed in Section 1.3 of Chapter 1. The age of a vehicle refers to the number of years since its date of manufacture.

The National Transit Database reporting system is based on a transit agency's fiscal year. Over 60 percent of all transit agencies reporting complete their respective fiscal year before the end of a calendar year. As a result, a revenue vehicle manufactured, delivered, tested, and accepted by a transit agency after the end of the fiscal year but within the calendar or manufacturer year will not be reported until the next report year.

### Potential Data Applications

The data presented in Tables 14-27 can be used to help answer questions regarding service provided by individual transit agencies relative to the investment required. For example, how many employees, how much fuel, and how many vehicles were required to provide that service; how safe was that service; and, how much use was made of the service by transit patrons.

#### 2.6 Performance Indicators

Tables 28-31 contain selected performance indicators for individual transit agencies. These indicators

are not reported directly, but are computed from other reported data. Usually, these relate measures of service outputs to measures of resource inputs such as vehicle revenue miles per operating expense and service outputs to service consumption such as vehicle revenue mile per unlinked passenger trip. Performance measures are computed separately for each mode and therefore should utilize only data items reported on a modal basis (revenues and reconciling expenses are excluded).

Many performance indicators can be computed from these data and other sources. Again, analysts should note the limitations relating to interpretation and use of any performance indicators, relating primarily to the need to examine underlying or causal factors in greater detail. Added to these limitations are data waivers and/or exemptions granted to reporters due to reporting burden, initial report submission, unique circumstances, and other factors. The combinations of these limitations may compound interpretation and use of individual performance indicators for a particular mode and type of service.

Great potential for distortion exists if only one or two performance indicators are viewed in isolation. For example, the single measure Operating Expense per Unlinked Passenger Trip might be misleading for a transit agency with a disproportionately high number of transfers (caused, for example, by geographical or routing constraints).

In addition, users of these performance indicators data are advised that similar performance indicators derived from other 1997 publications may contain different values when comparisons between reports are made. This is applicable in the cases where a ratio is computed using purchased transportation data while the performance indicators presented in this publication are for directly operated service only.

#### **Tables 28-31:** Transit Performance Indicators.

The data were derived using the Operating Expenses Form (301) modal, the Revenue Vehicle Maintenance and Energy Form (402), the Transit Way Mileage Form (403), the Transit System Employee Form (404), the Transit Safety Form (405), and the Transit System Service Form (406).

Tables 28-31are comprised of directly operated service only.

Tables 28-31 highlight the following data:

- Table 28: Service Supplied data ratios.
- Table 29: Cost Efficiency and Cost Effectiveness.
- Table 30: Service Consumption per Service Output ratios and Miles per Vehicle Maintenance Expense.
- Table 31: Employee Work Hour per Vehicles Operated in Maximum Service.